

pyramids, which reflect not only long-term trends in fertility and mortality, but are also sensitive to the short term effects of wars, migrations, epidemics and baby-booms.

A wealth of available information on fertility, mortality, migration and population growth from all over the world are presented and interpreted and the questions of definitions and methodology are considered. The factors affecting fertility are complex and no adequate data exist for many parts of the world. With the application of medical knowledge, which developed in advanced countries, to those countries where the level of living is low, world mortality has been declining much faster than fertility, leading to a great increase in population. The geographical differences in the patterns of mortality are well presented through maps.

This book contains a vast amount of information on the populations of the world, which would be interesting not only to geographers but also to demographers and sociologists. As it covers a very wide ground, it was not possible to go very deeply into any particular topic, so that for those who want to make a specialized study of any subject, a detailed list of references is given at the end of every chapter.

SAVITRI THAPAR

**Bourgeois-Pichat, Jean.** *Population Growth and Development*. New York, 1966. Taplinger Publishing Company, Pp. 81. Price 50 cents.

THIS IS A pamphlet published by the Carnegie Endowment for International Peace in the form of an issue of *International Conciliation*. Its main purpose is to describe briefly the world population problem of to-day, and this it does clearly with some good tables and charts. The principal contents are a chapter on the latest population projections to the year 2000, made by the United Nations Organization's Population Commission, and a chapter giving a few facts about birth control movements, declining mortality, international migration and trends in age-distribution. An unusual and welcome feature is a concluding chapter on the role of international organizations, in which the delicate question of their activities in regard to birth control is touched upon.

A startling result is shown in Table 3, on page 10, in which is set out the number of years required to attain a density of one inhabitant per square metre of the world's land surface. It is indicated that, starting from 1960, only 190 years are needed to attain this state if the annual growth rate is 2 per cent, or 130 years if the rate is 3 per cent per annum. Fortunately, the arithmetic in this table is wildly inaccurate. The present world density is 23 per square kilometre. In the periods indicated it would rise to 1000 per square kilometre, but this is not the same as 1 per square metre. It is only one-thousandth as dense! Possibly the author's assistant has been confused by the difference between a European billion and the French and American billion.

P. R. C.

### FERTILITY

**Whelpton, Pascal K., Campbell, Arthur A. and Patterson, John E.** *Fertility and Family Planning in the United States*. Princeton, NJ, 1966. Princeton University Press. (London, 1966. Oxford University Press.) Pp. xxvxi+443. Price 100s.

POPULATION PROJECTIONS HAVE always tended to be chancy affairs, and more often than not have turned out to be falsified by subsequent events. As all of them involved the extrapolation of mortality and fertility rates into the future by more or less mechanical methods, this is hardly surprising. In Western populations, the forecasting of fertility is the critical factor, and in 1955 the authors of the "Growth of American Families" study\* attempted to improve the quality of the forecast by asking a sample of American women to give some indication of their expected future fertility and projected fertility forward on the basis of their replies.

It was obviously important to try and ascertain whether the replies given in 1955 were a good predictor of reproductive performance in the subsequent quinquennium. This check was one of the objectives of the present investigation. It consists of a report on interviews undertaken

\* R. K. Freedman, P. K. Whelpton and A. A. Campbell, *Family Planning, Sterility and Population Growth*—New York, 1959.